

23. {THRICE AMENDED} An optical apparatus for reading information, including an aiming device for visually indicating along a Z axis a reading zone, comprising at least one illuminating assembly active on a reading zone portion along an optical emission path, said at least one illuminating assembly comprising:

a light source for emitting a light beam;

a diaphragm having a preset shape for selecting as shaped light a portion of the light generated by said source, thereby allowing propagation of said selected portion of the light beam and preventing propagation of a remaining portion of the light beam; and

a converging lens placed downstream of the diaphragm for collecting the shaped light coming from the diaphragm and projecting it onto the reading zone portion, thereby providing on the reading zone immediate visual feedback regarding the position of said shaped light relative to the reading zone

24. {THRICE AMENDED} A method for aiming and visually indicating a reading zone, characterized in that the method comprises the steps of:

generating, by means of a light source, at least one light beam for illuminating a portion of the reading zone along an emission path;

selecting, by means of a shaped diaphragm, a portion of the light beam generated by the light source as shaped light, thereby allowing propagation of said selected portion of the light beam and preventing propagation of a remaining portion of the light beam;

converging, by means of a converging lens, the selected portion of the shaped light coming from the diaphragm; and

projecting, onto the reading zone, the shaped light beam picked up on the converging lens, thereby providing on the reading zone immediate visual feedback regarding the position of said shaped light relative to the reading zone.

31. {ONCE AMENDED} An aiming device for visually indicating a reading zone, the device comprising at least two first illuminating assemblies disposed on opposite sides with respect to an aiming axis Z and active on respective portions of the reading zone along an optical emission path in order to identify on the reading zone respective patterns, wherein each of said at least two first illuminating assemblies comprises:

a light source for emitting a light beam;

a diaphragm having a preset shape for selecting as shaped light a portion of the light generated by said source, thereby allowing propagation of said selected portion of the light beam and preventing propagation of a remaining portion of the light beam; and

a converging lens placed downstream of the diaphragm for collecting the shaped light coming from the diaphragm and projecting the shaped light onto the reading zone portion, thereby providing on the reading zone immediate visual feedback regarding the position of said shaped light relative to the reading zone.

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53. {ONCE AMENDED} An optical apparatus for reading information, comprising an aiming device for visually indicating a reading zone, the device comprising at least two first illuminating assemblies disposed on opposed sides with respect to an aiming axis Z and active on respective portions of the reading zone along respective optical emission paths in order to identify on the reading zone respective patterns, wherein each of said at least two first illuminating assemblies comprises:

a light source for emitting a light beam;

a diaphragm having a preset shape for selecting as shaped light a portion of the light generated by said source, thereby allowing propagation of said selected portion of the light beam and preventing propagation of a remaining portion of the light beam;

a converging lens placed downstream of the diaphragm for collecting the shaped light coming from the diaphragm and projecting the shaped light onto the reading zone portion, thereby providing on the reading zone immediate visual feedback regarding the position of said shaped light relative to the reading zone.

54. {ONCE AMENDED} A method for aiming and visually indicating a reading zone, characterized in that the method comprises the steps of:

generating, by means of at least two light sources, at least two light beams for illuminating respective portions of the reading zone along respective emission paths;

selecting, by means of shaped diaphragms having a predetermined size, a portion of each of the light beams generated by the light sources as shaped light beams comprising shaped light, thereby allowing propagation of said selected portions of each of the light beams and preventing propagation of remaining portions of each of the light beams;

converging, by means of converging lenses, the shaped light beams coming from the diaphragms;

projecting, onto the reading zone portion, the shaped light beams picked up on the converging lenses in order to identify on the respective portions of the reading zone respective patterns and provide on the reading zone immediate visual feedback regarding the position of said patterns.

59. {ONCE AMENDED} An aiming device for visually indicating a reading zone, the device comprising at least two first illuminating assemblies disposed opposed sides with respect to an aiming axis Z and active on opposed portions of the reading zone along respective optical emission paths in order to identify on the reading zone at least two discrete patterns, wherein each of said at least two first illuminating assemblies comprises:

a light source for emitting a light beam;

a diaphragm having a preset shape for selecting as shaped light a portion of the light generated by said source, thereby allowing propagation of said selected portion of the light beam and preventing propagation of a remaining portion of the light beam;

a converging lens placed downstream of the diaphragm for collecting the shaped light coming from the diaphragm and projecting the shaped light onto the reading zone portion, thereby providing on the reading zone immediate visual feedback regarding the position of said discrete patterns.

60. {ONCE AMENDED} An optical apparatus for reading information, comprising an aiming device for visually indicating a reading zone, the device comprising at least two first illuminating assemblies disposed on opposed sides with respect to an aiming axis Z and active on opposed portions of the reading zone along respective optical emission paths in order to identify on the reading zone at least two discrete patterns, wherein each of said at least two first illuminating assemblies comprises:

a light source for emitting a light beam;

a diaphragm having a preset shape for selecting as shaped light a portion of the light generated by said source, thereby allowing propagation of said selected portion of the light beam and preventing propagation of a remaining portion of the light beam;

a converging lens placed downstream of the diaphragm for collecting the shaped light coming from the diaphragm and projecting the shaped light onto the reading zone portion, thereby providing on the reading zone immediate visual feedback regarding the position of said shaped light relative to the reading zone.

61. {ONCE AMENDED} A method for aiming and visually indicating a reading zone, characterized in that the method comprises the steps of:


generating, by means of at least two light sources, at least two light beams for illuminating opposed portions of the reading zone along at least two emission paths;

selecting, by means of shaped diaphragms having a predetermined size, a portion of each of the light beams generated by the light sources as shaped light beams comprising shaped light, thereby allowing propagation of said selected portion of each of

the light beams and preventing propagation of a remaining portion each of the light beams;

collecting, by means of converging lenses, the shaped light beams coming from the diaphragms;

projecting, onto the reading zone portion, the shaped light beams picked up on the converging lenses in order to identify at the opposed portions of the reading zone respective at least two discrete patterns and provide on the reading zone immediate visual feedback regarding the position of said discrete patterns.



62. {ONCE AMENDED} An aiming device for visually indicating a reading zone, the device comprising at least one illuminating assembly active on a reading zone portion along an optical emission path, said at least one illuminating assembly comprises:

a light source for emitting a light beam;

a diaphragm having a preset shape for selecting as shaped light a portion of the light generated by said source, thereby allowing propagation of said selected portion of the light beam and preventing propagation of a remaining portion of the light beam; and

a converging lens placed downstream of the diaphragm for collecting the shaped light coming from the diaphragm and projecting the shaped light onto the reading zone portion, wherein the converging lens is positioned at a suitable distance away from the diaphragm such that the image of the shaped light coming from the diaphragm is focused onto the reading zone portion, thereby providing on the reading zone immediate visual feedback regarding the position of said shaped light relative to the reading zone.